MEDICAL IMAGING

CSO Customer Support Operations

Technical Documentation

Order-No.: DD+DIS288.00E

1 Piece UBFKV MA1

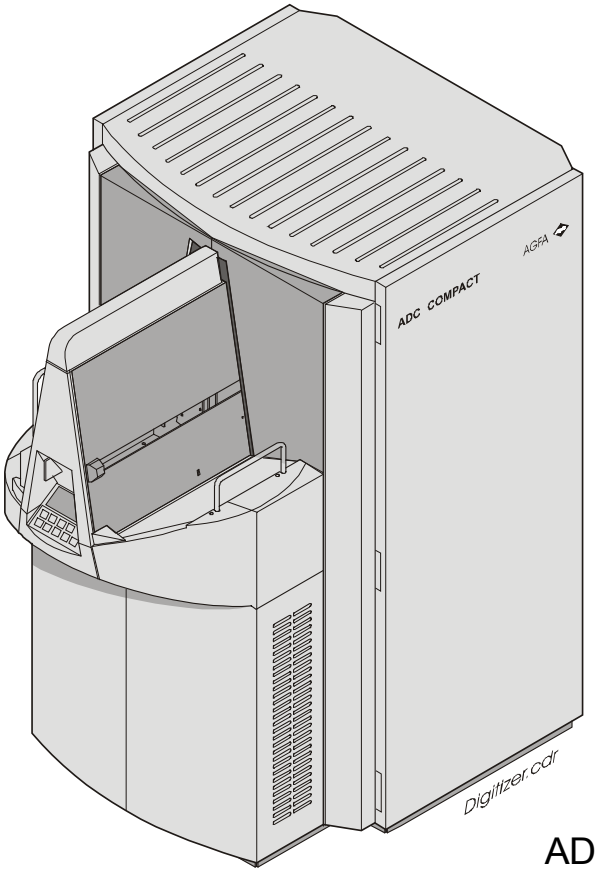
ADC COMPACT

Type 5145 / 100/101/140

Type 5145 / 200/201/240

Installation Planning and Specifications

2nd edition



ADC Compact
Digitizer
Type 5145
Base: VME

These Installation Planning instructions can also be ordered separately.
Order number: DD+DIS288.00E

printed in Germany

AGFA

Section 14

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1 General

This document describes the Installation Planning of the ADC Compact Digitizer.

For the Installation Planning of the ADC Solo Digitizer, ADC ID-Station and the ADC Processing Station please refer to the following documents:

ADCSolo Digitizer:	DD+DIS217.98E
ADC System	DD+DIS003.00E

1.1 Safety Instructions

Electrical connections and repairs must only be made by authorised electricians.

Mechanical connections and repairs must only be made by authorised technicians.

For Technical Data of the commercially available devices as PCs and Processing Stations please refer to the corresponding user manuals!

1.2 Safety Regulations

Installation Regulations

Electrical installations in the installation room must be in compliance with: IEC 364 (VDE 0100) regulations for Europe, NEC for USA/Canada.

Prior to any electrical installation, the local regulations for electrical installations have to be consulted as well.

GFCI switch: Not compulsory but recommended.

Upon machine installations it must be ensured that either the mains connector of the respective machine or an all-pole circuit breaker for the installation on site is located close to the machines and easily accessible.

Mains Connection:

Fixed connection through the floor via an all-pole circuit breaker, liquid-proof installation or connection via plug and socket.

- The ADC COMPACT Digitizer is in compliance with EG regulation 93/42/EEC (Medical device).
- The ADC COMPACT Digitizer is tested in compliance with:
  - IEC 950/EN 60950: 1992; A1: 1993; A2: 1993; A3: 1995; A4: 1997
  - UL1950; CSA 22.2 No.950
  - EN 60825-1:1994
- The ADC COMPACT Digitizer is UL / CUL approved
  - E47750

TÜV Approval Certificate

Radio Interference Suppression

It is hereby certified that the ADC COMPACT Digitizer has interference suppression according to EN 55011 Class B as well as FCC Rules CR47 Part 15 Class A (North-America).

Warning

This equipment generates uses and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart B of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in an residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

1.3 System Overview and Network Configuration

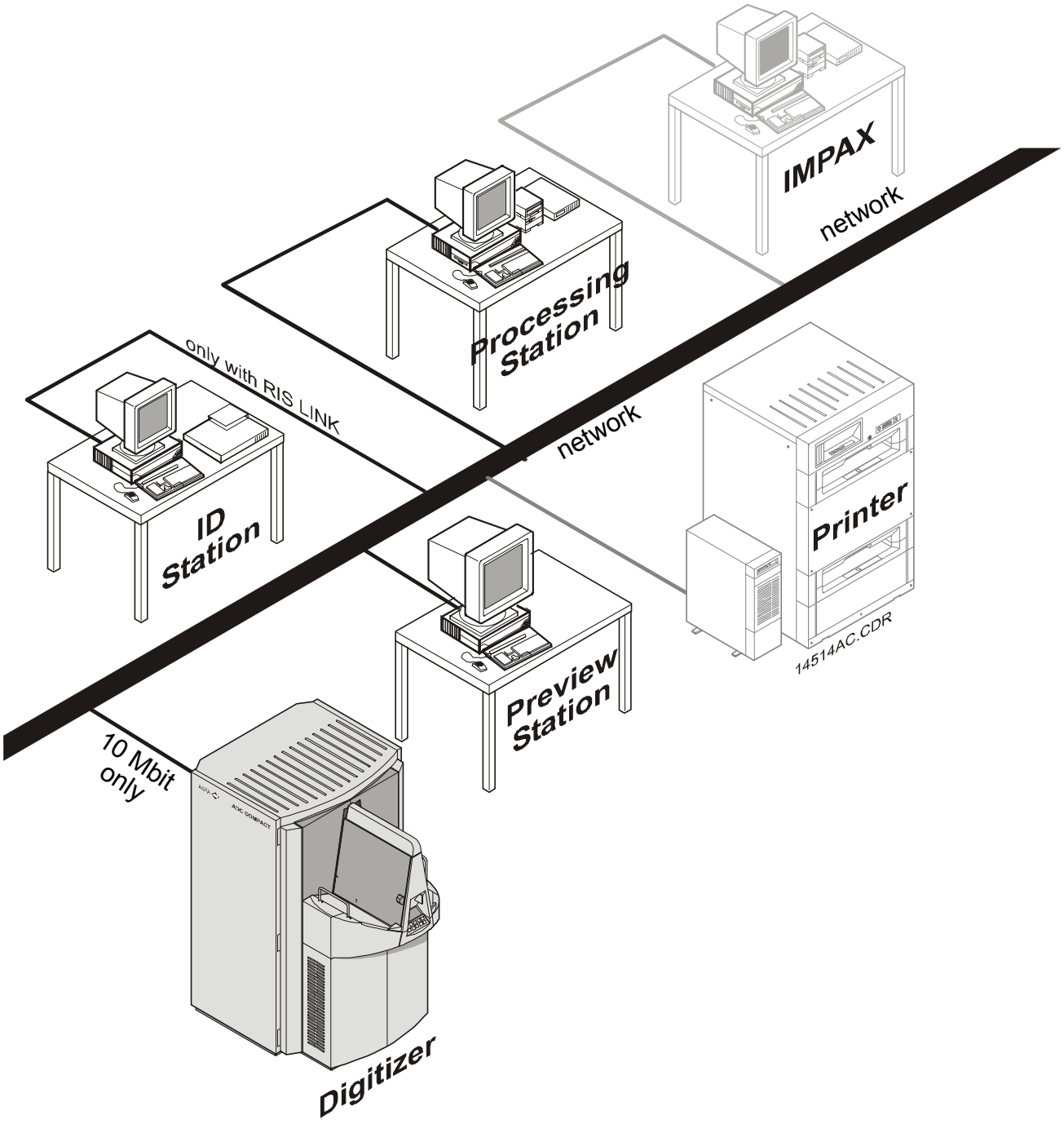


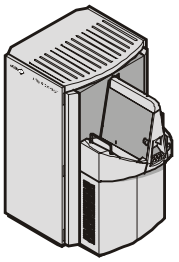
Figure 1

System Overview

1.3.1 Integration into a dedicated ADC Network (1 Digitizer, 1 PRID Station, 1 Processing Station)

If a dedicated ADC network will be delivered, the settings given in the shipment defaults can be taken directly.

hostname:	**adcc1**
ip_addr.:	**192.9.200.199**
subnet_mask:	
default router:	
AE_title:	**ADCC1**
StationName:	**ADCC1**



A new configuration of the machine is not required.

1.3.2 Integration into an existing / new Network

Change the configuration according to the network administrator before connecting to the network. Fill in the form at the end of the section.

The given shipment configurations must not be used.

1.4 Type Overview

ABC code	Type number	Machine designation
Digitizer		
37J1D	5145/100	ADC COMPACT for /400–415 V, 3N~, 50/60 Hz (series production ends in Nov. 2000)
EF29L	5145/101	ADC Compact for 230–240 V, Single Phase, 50/60 Hz (follow-up model to type 5145/100 as of Nov.2000)
37QAP	5145/140	ADC COMPACT for 200/208 V, 3Ph, 50/60 Hz
ID-Station		
36743	4406 / 821	ID Station , preconfigured system
37QUU	4406 / 841	ADC ID - Tablet
37J2F	4406 / 745	ID Station Software
Options		
37J4K	4406 / 831	- ADC Console
36755	4406 / 851	- ADC Cassette rack
37QVW	4406 / 910	- PC-Shelf
Processing Station		
36767	LASP6 / 009	ADCC Processing server HW , preconfigured system
37J5M	4406 / 760	ADCC Autoprocessing software
Options		
37J6O	**	- ADCC Interactive processing SW
368CN	UPSPS / ADC	- ADCC UPS 230 V (Uninterruptible power supply)
EA881	**	- ADCC UPS 110 V (Uninterruptible power supply)
39EZB	**	- External harddisk 1 x 9 GB with SCSI cable 68P-68P
39E1D	**	- External harddisk 2 x 9 GB with SCSI cable 68P-68P
368GV	**	- 64 MB memory extension
368BL	4406 / 871	- ADC high brightness 1K Monitor (IMAGE SYSTEM MONITOR)
3678C	4406 / 861	- ADC high brightness 1K Monitor (SIEMENS)
Preview Station		
36743	4406 / 821	Preview Station , preconfigured system
37J3H	4406 / 720	Software for Preview Station

**) not yet defined

2 Machine Dimensions

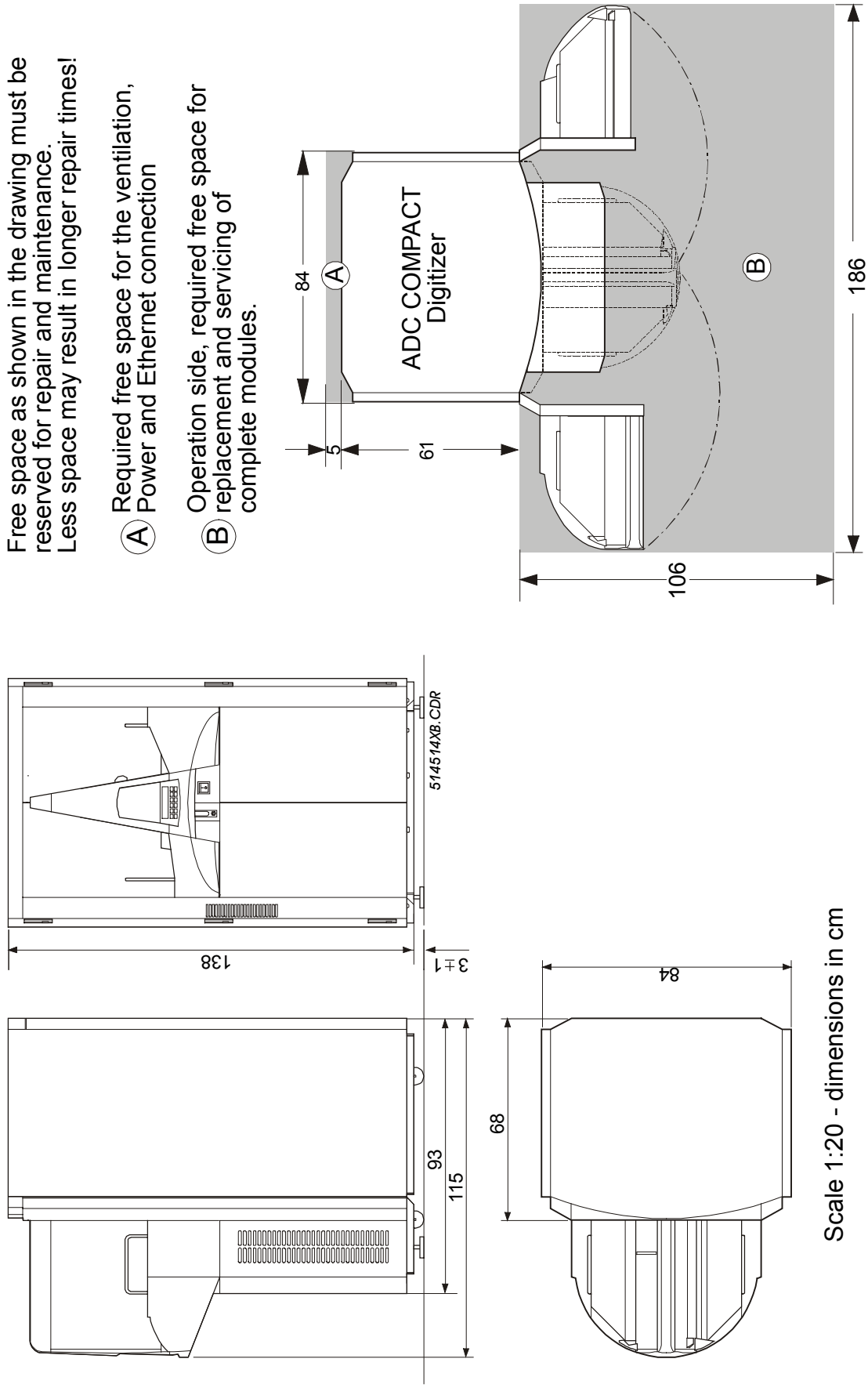


Figure 2

3 Transport Path

It must be possible to transport the machine through all hallways and doors up to the installation site.

- **Smallest machine dimension: 84 cm.**
- The machine dimensions are 115cm x 84cm, packed on a pallet the size is 135cm x 100cm
- Once the machine is unpacked, it can be moved to the installation site on four mounted rollers.
- For removal of the machine off the pallet a minimum space of **100cm x 500cm** is required.

Make sure that the floor covering is solid enough to stand the weight of the digitizer.

4 Power Consumption

Voltage 400-415V +6% -10% (3~N), Line fuse: max 16A

Type 5145 / 100/200	max. current L1	max. current L2	max. current L3
Standby	< 0.5A	< 0.5A	< 2A
IP-Handling	< 0.5A	< 0.5A	< 3A
Handling and erasure	< 10A	< 10.5A	< 3.5A

Voltage 208V +6% -10% (3~N), Line fuse: max 20A

Type 5145 / 140/240	max. current L1	max. current L2	max. current L3
Standby	< 2A	< 2A	< 0.5A
Handling and erasure	< 13A	< 12A	< 18A

Voltage 200V +6% -10% (3~N), Line fuse: max 20A

Type 5145 / 140/240	max. current L1	max. current L2	max. current L3
Standby	< 2A	< 2A	< 0.5A
Handling and erasure	< 13.5A	< 12A	< 19A

Voltage 230/240V +6% -10% (single phase), Line fuse: max 25A

Type 5145 / 101/201	max. current
Standby	< 2A
IP-Handling	< 3.5A
Handling and erasure	< 21.5A

5 Electrical Connections

External connection cables of the system components are to be installed prior to the installation of the ADC Compact System. See also chapter "1.2 Safety Regulations“.

Leakage current toward earth connection:

Type 5145 / 100/200: $\leq$ 5.2 mA

Type 5145 / 101/201: $\leq$ 6.9 mA

Type 5145 / 140/240: $\leq$ 6.4 mA

5.1 Power Connections

Plan ahead for possible repair that may be needed and use a cable length for power supply of at least 2.5 m in order that the machine can be moved away from the wall.

5.1.1 Types 5145 / 100/140/200/240 (three-phase)

Power supply via an all-pole main switch or connection via plug and socket.

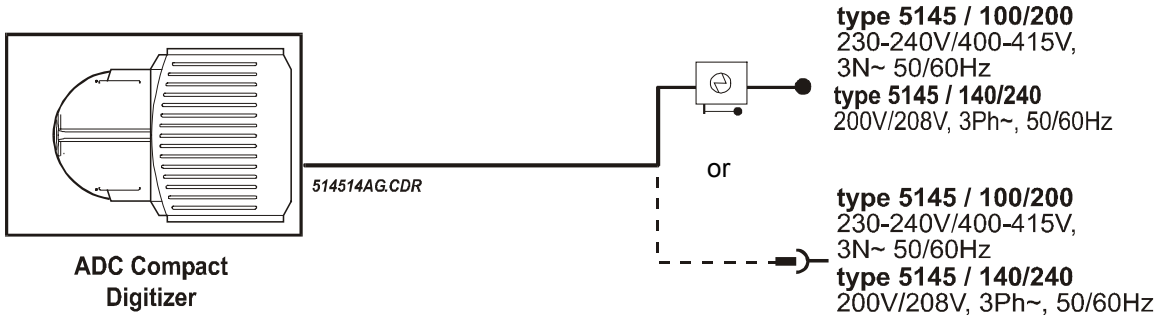


Figure 3

The mains cable is led through a cable duct (with strain relief) to the connection plate (wiring, see below)

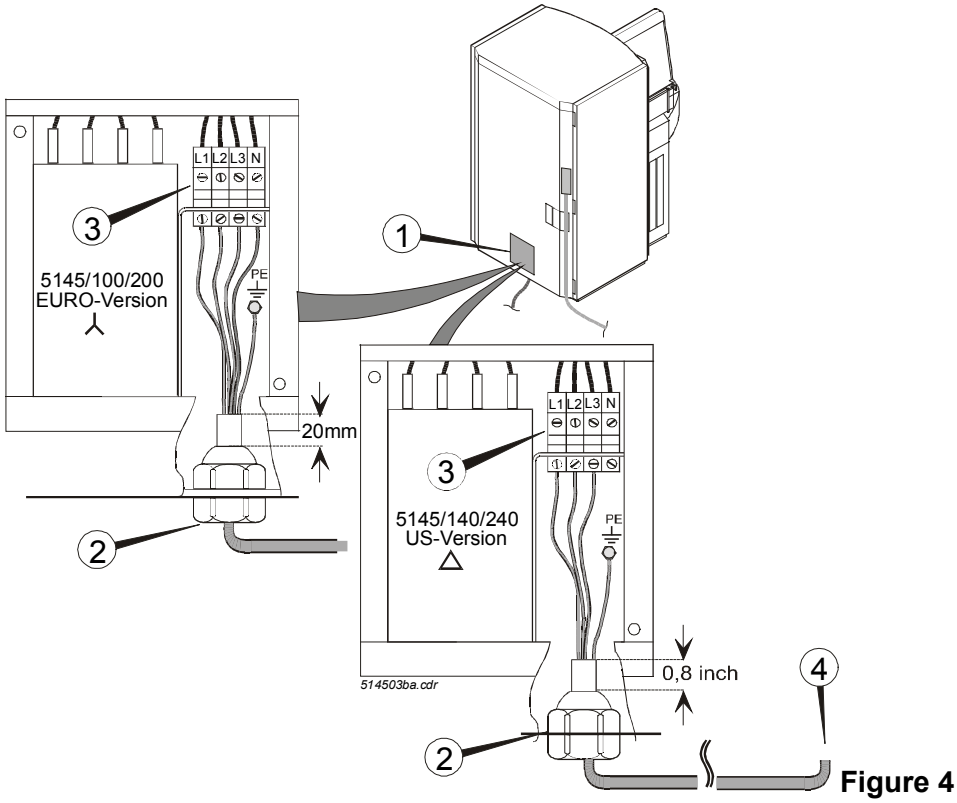


Figure 4

With ADC Compact / type 5145 / 100/200 (Euro version) digitizers the mains cable is fixed to the machine ex works. A plug is not part of the consignment. Please observe the local regulations concerning electrical installations!

With ADC Compact / type 5145 / 140/240 (US version) the mains cable is part of the enclosure and has to be connected to the machine by the FSE. A plug is not part of the consignment. Please observe the local regulations concerning electrical installations!

5.1.2 Type 5145 / 101/201 (single-phase)

Power supply via an all-pole main switch or connection via plug and socket.

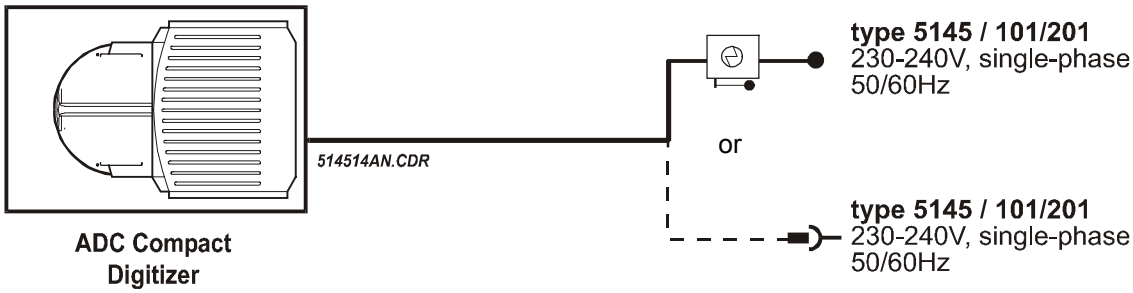


Figure 5

The mains cable is led through a cable duct (with strain relief) to the connection plate (wiring, see below).

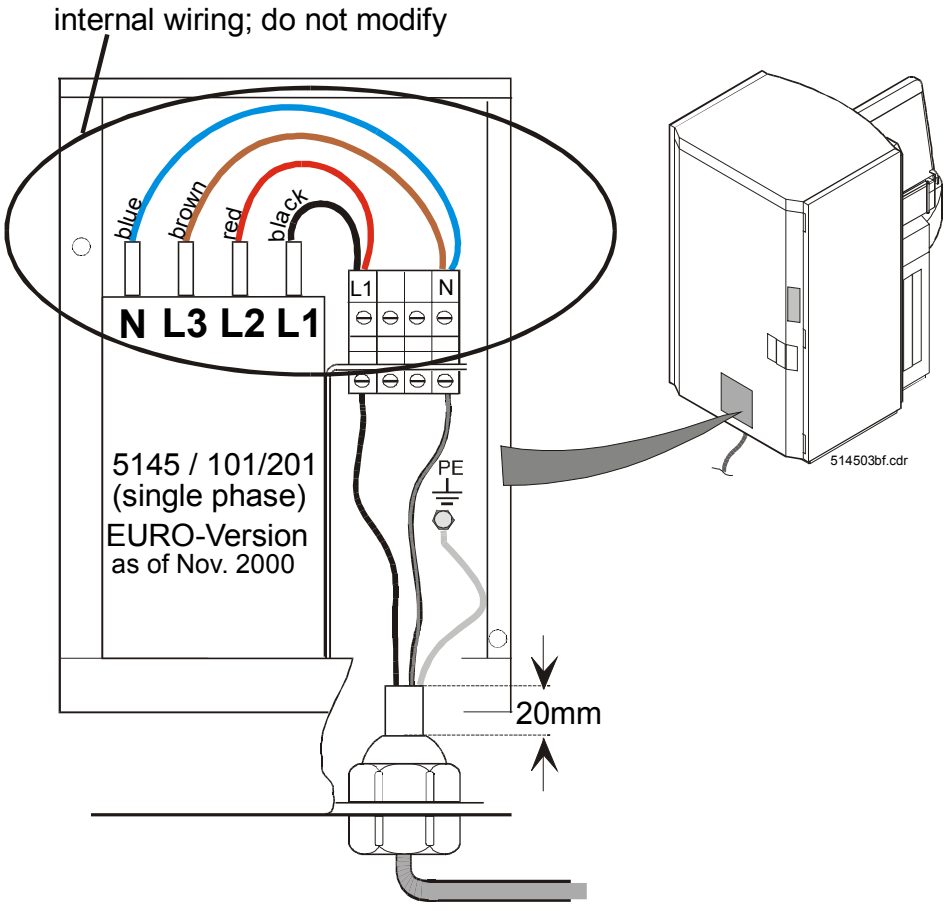


Figure 6

With ADC Compact / type 5145 / 101/201 (Euro version as of Nov. 2000)) the mains cable is fixed to the machine ex works.

A plug is not part of the consignment. Please observe the local regulations concerning electrical installations!

5.2 External Fuse Protection

Type 5145 / 100/200

50 Hz, 230–240 V (3Ph) / 400–415 V (3Ph+N), -10 % +6 %	**max. 16A / phase**
60 Hz, 240 V (3Ph), -10 % +6 %	**max. 20A / phase**

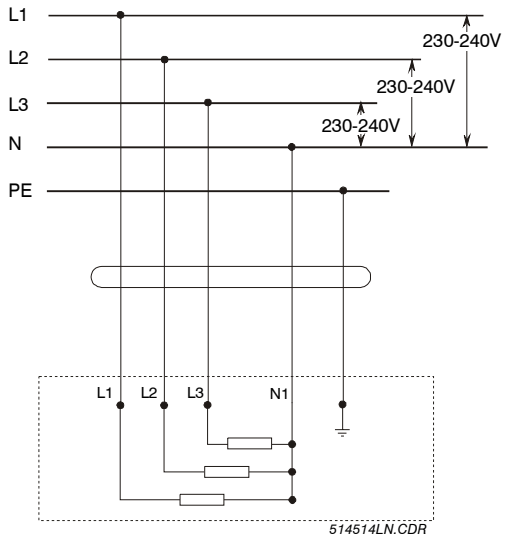
Type 5145 / 101/201

50/60 Hz, 230–240 V single-phase, -10 % +6 %	**max. 25A**

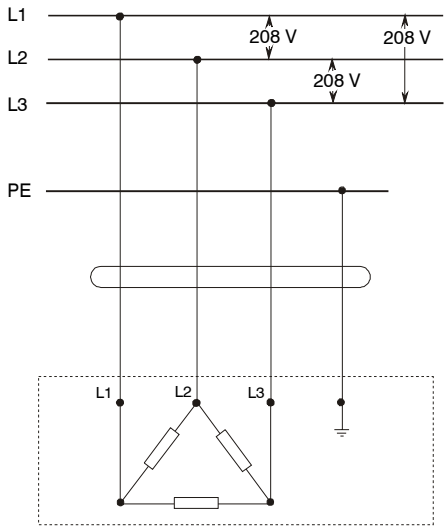
Type 5145 / 140/240

50 Hz, 200–208 V (3Ph), -10 % +6 %	**max. 20A / phase**
60 Hz, 200–208 V (3Ph), -10 % +6 %	**max. 20A / phase**

Type 5145 / 100/200 (three-phase)
(Euro version)



Type 5145 / 140/240 (three-phase)
(US version)



Type 5145 / 101/201 (single-phase)
(Euro version as of Nov. 2000)

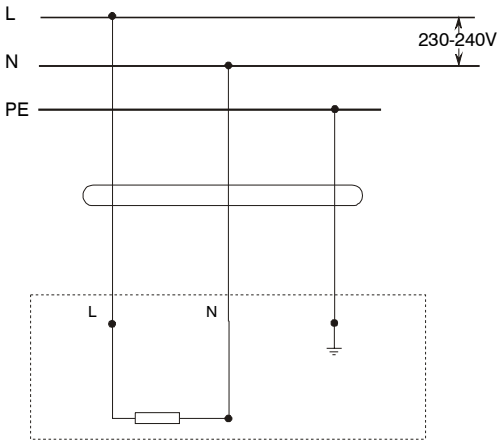
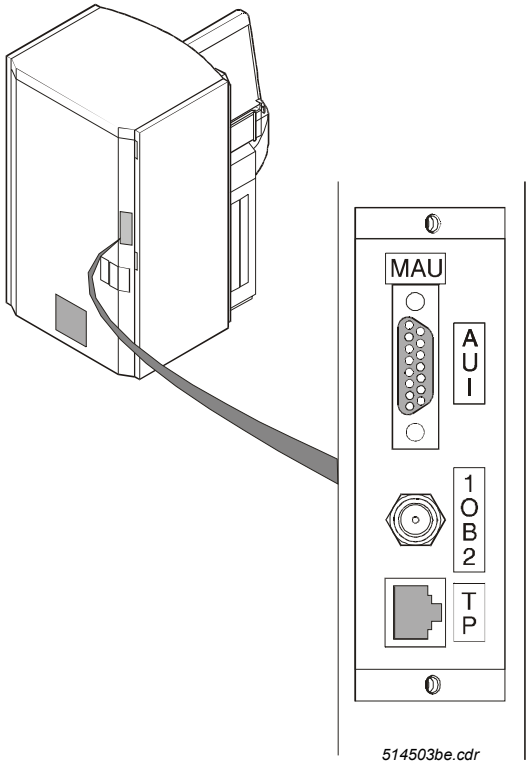


Figure 7

5.3 Network Connection



Plan ahead for possible repair that may be needed and use a cable length for Ethernet of at least 2.5m.

Interface network connections: Ethernet: BNC, twisted pair or 15pin AUI

5.4 Connection Cables

Power Supply

- Type 5145 / 100/200: -> H05VV - 5 x 2.5 mm² (Euro version)
- Type 5145 / 101/201: -> H05VV - 3 x 2.5 mm² (Euro version as of Nov. 2000)
- Type 5145 / 140/240: -> 4xAWG12 SJ (US version) or heavier.

Network Components

The following network components may be ordered separately as required:

Cables

ABC code	Type	Length
31D3F	UTP-cable, (unshielded twisted pair connection cable for ethernet 10 base-T)	5 m
31D4H	UTP-cable, (unshielded twisted pair connection cable for ethernet 10 base-T)	50 m
31D5K	UTP-cable, (unshielded twisted pair connection cable for ethernet 10 base-T)	100 m

Hubs

ABC code	Type	
398JQ	Hub (Twisted pair, BNC)	

6 Ambient Conditions of the ADC Compact Digitizer

Emissions:

Noise level:	Max. 65 dB (A)
Heat emission:	into the room during standby mode 900 W, maximum 2500 W.

Ambient Conditions:

Room temperature:	minimum 15 °C, maximum 30 °C; ideal 20°C.
Floor conditions:	The digitizer stands on a metal plate, 2 mm thick.
Relative humidity:	At a room temperature of 25 °C; minimum 15 %, maximum 75 %; ideal 40-50%.
Effects of radiation:	If the machine is located in the immediate vicinity of the X-ray room, it is imperative that the local radiation safety regulations are followed. (Protection of operative personnel against scattered radiation). The machine itself is not designed to be located in the X-ray room, i.e. it has no built-in protection against scattered radiation.
Max. permissible magn. field in the room:	according to EN 61000-4-8, Level 3.

Avoid a site where the digitizer is exposed to sunbeams.
To avoid technical faults, make sure that the atmosphere is almost dust-free.

7 Packing Dimensions and Weights

L x W x H	135 cm x 100 cm x 175 cm
Weight with box: Weight without box:	≈ 350 kg ≈ 320 kg

8 Checklist for the Technician responsible for the Installation

In order to avoid any unnecessary delays during the installation and the machine start-up, the following points of the checklist below should be carried out prior to the installation.

Check and discuss all the required measures for the installation by means of this checklist. Remarks on the individual items may be made on the back of the list.

We ask you to give this checklist then to your local A-G representative.

Customer: .....

Department: .....

System components: .....

.....

.....

.....

.....

Desired installation date: ..... **Signed:** .....
Signature

Remarks:

8.1 Checklist

	Required external connections:	Prepared:	**OK**	**NOK**
1.	ADC COMPACT Digitizer	• Fixed connection via an all-pole main switch or connection via plug and socket approx. 30 cm from the floor. Type 5145/100/140 (three phase): Cable H05VV 5 x 2.5 mm² or 4 x AWG12SJ, Type 5145/101 (single phase): Cable H05VV 3 x 2.5 mm²,	❒	❒
		• Appointment with the house electrician or authorised electrician for the mains connection has been made?	❒	❒
		• Ethernet connection (BNC or MAU or Twisted pair) prepared	❒	❒
2.	Direct Remote Access	• Remote Access must be guaranteed!	❒	❒
		Transport to the installation site, unpacking and taking the machine off the pallet must be done by the carrier.		
3.	Transport path (≥ 84cm) for the ADC COMPACT Digitizer: Way:		❒	❒
4.	Free space for taking the machine off the pallet defined? (5 x 1 m) Place:		❒	❒

Form to fill in the Network Parameters

Digitizer	Example	1st Digitizer	2nd Digitizer	Remarks
hostname	adcc1			
ip_addr.	192.9.200.199			
Subnet_mask				
default router				
AE_title	ADCC1			
Station Name *	ADCC1			

Processing Station	Example	1st Processing Station	2nd Processing Station	Remarks
hostname	vips			
ip_addr.	192.9.200.202			
subnet_mask				
default router				
AE_title	VIPS			
Station Name *	VIPS			

PRID - Station	Example	1st PRID - Station	2nd PRID - Station	Remarks
hostname	prid1			
ip_addr.	192.9.200.203			
Subnet_mask				
default router				
AE_title	PREV1			
Staton Name	PREV1			
AE_title	IDEN1			
Station Name *	IDEN1			

main components

Preview Station	Example	1st Preview Station	2nd Preview Station	Remarks
hostname	prev206			
ip_addr.	192.9.200.206			
Subnet_mask				
default router				
AE_title	PREV206			
Station Name *	PREV206			

HardCopyPrinter	Example	1st HCP	2nd HCP	Remarks
hostname	mg1			
ip_addr.	192.9.200.201			
Subnet_mask				
default router				
AE_title	ADC_LR1			
Station Name *	ADC_LR1			

ID - Station	Example	1st ID-Station	2nd ID-Station	Remarks
hostname	id207			
ip_addr.	192.9.200.207			
Subnet_mask				
default router				
AE_title	ID207			
Station Name *	ID207			

PACS Archive Station	Example	1st Archive Station	2nd Archive Station.	Remarks
hostname	simas1			
ip_addr.	192.9.200.101			
Subnet_mask				
default router				
AE_title	SIMAS1			
Station Name *	IMPAX			

*) Friendly name (Station name) appears in the USER interface

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